

REMARKS

Claims 1-5 and 8-19 were pending. Claim 1 has been amended, Claims 2-5, 12-15, and 17 have been cancelled, Claims 18 and 19 have been withdrawn, and Claims 20, 21 have been newly added, leaving Claims 1, 8-11, 16, 20 and 21 for consideration in the present amendment. In addition, the specification has been amended to address the objection noted in the Office Action.

Support for the amendment to Claim 1 can be found at least in original Claim 17, the carryover paragraph on pages 3 and 4, and on page 21, third full paragraph. Support for newly added Claim 20 can also be found on page 21, third full paragraph. Support for newly added Claim 21 can be found at least on page 16, third full paragraph.

It is believed that the amendments made herein may be properly entered at this time, i.e., after final rejection, because the amendments do not require a new search or raise new issues and reduce issues for appeal. No new matter has been introduced by these amendments.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Miscellaneous

1. Applicants affirm the withdrawal of Claims 18 and 19.
2. With regard to the term "element having an isolation ratio of not more than 10% by number" as recited in Claim 1, the term isolation ratio is based on the phenomena that an element incorporated in toner particles is isolated or released from the toner particles. For example, a colorant such as copper phthalocyanine can be incorporated in the toner particle; however, a portion of the colorant may exist outside of the toner particle during formation thereof. This fundamentally differs from an external additive, which is not incorporated in the toner particles.

Applicants also found it difficult to understand the following statement provided in the Office Action on page 3, second paragraph, that the above noted term "refers to the particles

comprising the element that are not incorporated in the toner particles during formation of the toner particles. In other words, the particles containing the element are not an additive externally added to the preformed toner particles". It should be noted that the element as featured in Claim 1 is not provided as an external additive. This is why Applicants have purposely not used the term "particles comprising..." in the claim language. The term "particles comprising the element" refers to the toner particles themselves. By way of example, the element copper is incorporated in the toner particles as a colorant as presented in amended Claim 1. A portion of the colorant is isolated from the toner particles, wherein the isolation ratio is no more than 10% and no less than 0.1% by number. The Office refers to several portions of the specification that support this. For example, Toner No. 6 in Applicants' examples measures the isolation ratio for the element copper incorporated into the toner particles whereas titanium oxide is added as an external additive. The externally added titanium is not incorporated into the other particle (although it may become attached to an external surface of the toner particles) and because of this, the externally added titanium has no isolation ratio. The art cited in the present Office Action also supports this. For example, Sasaki 130 discloses toner particles containing copper colorant in a core, which is then covered with a shell. Since the copper colorant in the core is covered by the shell, the isolation ratio is expected to be small by virtue of the shell. Support for this interpretation is provided in Applicants examples and in its specification beginning on page 6, first full paragraph to page 9, second paragraph.

3. Applicants agree with the interpretation provided in the Office Action as it relates to the terms "synchronous and non-synchronous emissions". The synchronous emission refers to an element coexisting with the toner particles, e.g., carbon. In contrast, non-synchronous refers to an element existing by itself without the toner particles, e.g., an external additive. The isolation ratio is the number of elements isolated from the toner particles \div the number of elements not isolated from the toner particles i.e., incorporated.

Objection to Specification

The objection is requested to be withdrawn in view of the amendment to the specification.

Claim Rejections under 35 USC 102(b)/103(a)

The Claims stand variously rejected under 35 USC 102(b)/103(a) as being obvious over US Pat. No. 5,367,493 to Kobayashi, U.S. Pat. No. 5,856,055 to Ugai, U.S. Pat. No. 5,645,967 to Sato, U.S. Pat. No. 6,238,836 to Nakamura, U.S. Pat. No. 5,672,454 to Sasaki, U.S. Pat. No. 5,763,130 to Sasaki, and U.S. Pat. No. 4,702,987 to Fukuchi as evidenced by ACS STN Nos. 147-14-4, 1317-61-9 and Applicants Admissions I, II, III, IV.

Claim 13 stands rejected by or over the Kobayashi patent or the Sasaki '130 patent. Claim 17 stands rejected by or over the Sato patent or the Nakamura patent or Sasaki '130 patent. No other references have been cited against these particular claims. Claim 1 includes the features of Claims 13 and 17 and because of this, with the exception of Sasaki '130 overcomes the other prior art rejections. Amended Claim 1 further includes the feature that the binder resin has a Mn 1,000 to 100,000, a Mw of 2,000 to 1,000,000 and a molecular weight of distribution (Mw/Mn) of 1.5 to 100. Sasaki '130 fails to teach or suggest the featured Mn, Mw, and Mw/Mn. In view of the foregoing, Claim 1 is patentably distinguished from the cited references.

New Claim 20 further narrows the molecular weight distribution feature and is patentable over the references for the same reasons discussed above. For similar reasons New Claim 21 further adds the feature that the colorant has an average primary particle size of 10 to 200 nanometers.

The foregoing is fully responsive to the Office Action.

If there are any charges with respect to this amendment, or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,

CANTOR COLBURN LLP

By: 

Peter R. Hagerty

Registration No. 42,618

CANTOR COLBURN LLP
1180 Peachtree Street, Suite 2050
Atlanta, GA 30309
Telephone (404) 607-9991
Facsimile (404) 607-9981
Customer No. 23413

Date: June 7, 2007